

REMARKS

The Office Action mailed September 21, 2004, has been carefully considered by Applicant. Reconsideration is respectfully requested in view of the foregoing claim amendments and the remarks that follow.

Claims 1-35 have been canceled.

Claims 36-58 are added.

Claim Rejections Under 35 U.S.C. §112

Claims 23-35 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. New claims 45-57 correspond to canceled claims 23-35 and are believed to overcome the rejection under 35 U.S.C. §112, second paragraph. In addition, claims 36-44 and 58 are added and are also believed in compliance with §112.

Claim Rejections Under 35 U.S.C. §102

Claims 23-35 have been rejected under 35 U.S.C. §102(b) as being anticipated by Bathe et al U.S. Patent No. 5,558,083. By the present Amendment, claims 23-35 are cancelled and replaced with claims 45-57. In addition, claims 36-44 and 58 have been added.

As explained in the Applicant's response dated June 2, 2004, the present invention is intended to provide an arrangement for verifying that a measuring device is functioning properly. In the embodiment shown in Fig. 3 of the Application, the invention is applied to an anesthesia machine in which the measuring device is a gas monitor. It will be appreciated that improper functioning of the gas monitor may result in the patient receiving an incorrect dosage of an anesthetic agent. Briefly, according to the arrangement claimed herein, a reference signal is fed to the measuring device periodically. The reference signal has a reference value that is known. A controlling device is adapted to compare the measuring value obtained on the basis of the reference signal with the known, real reference value of the reference signal. The controlling device is adapted to take safety measures

when the measuring value obtained on the basis of the reference signal, and the known, real reference value differ substantially from each other. *See* page 3, lines 12-19.

Claim 36

Claim 36 recites an arrangement for a feedback control system connected to a medical apparatus. The arrangement has a controllable device, a measuring device, a controlling device, and a user interface. The arrangement also includes means (15a, 15b, 15c) for periodically feeding a reference signal (16) to the measuring device. The controlling device is adapted to compare a measuring value from the measuring device based on the reference signal with the real, known reference value (17) of the reference signal. The controlling device is further adapted to take a safety measure when the measuring value (18) obtained on the basis of the reference signal and the real, known reference value (17) differ substantially from each other.

Bathe et al '083 teaches a gas sensing bench 52 which receives a sample from the gas flow to a patient 42 and creates a signal that is dependent upon the gas sample. The signal is fed to CPU 56. The gas sensing bench 56 in Bathe et al '083 is comparable to the measuring device (7) of claim 36. The gas sample 54 in Bathe et al '083 is comparable to the breathing gas sample (8) described in the present application.

Bathe et al '083 fails to teach or suggest means (15a, 15b, 15c) for periodically feeding a reference signal (16) to the measuring device. Correspondingly, Bathe et al '083 also fails to teach a controlling device (9) that is adapted to take a safety measure when the measuring value (18) obtained on the basis of the reference signal and the real, known reference value (17) differ substantially from each other. As such, Bathe et al '083 is incapable of periodically determining whether or not the measuring device (7) is operating correctly. This is completely contrary to the presently claimed invention. Bathe et al '083 thus neither teaches nor suggests the functions and advantages of the present invention.

As such, claim 36 is believed allowable.

Claims 37-44

Claims 37-44 depend directly or indirectly from claim 36 and are thus believed allowable for the reasons stated above, as well as the subject matter recited therein.

Claim 45

Claim 45 recites an arrangement for a feedback control system connected to a medical apparatus. Among other things, the arrangement includes means for providing a reference value (17) which provides a reference signal indicative of a known value for a sample property that can be measured by means for measuring (7). A second means for sampling (16) provides a sample exhibiting the sample property, a known value of which is indicated by the reference signal. Means for switching (15a, 15b, 15c) provide a patient care factor sample from first means for sampling (8) to means for measuring (7) to cause the means for measuring (7) to provide a first output signal to the control device (9) suitable for use in conjunction with an output signal from a user interface (12) to control a controllable device (10). According to claim 45, the means for switching (15a, 15b, 15c) are switchable to provide the property exhibiting sample from the second means for sampling (16) to the means for measuring (7) to cause the means for measuring (7) to provide a second output signal. A comparator for receiving the reference signal and the second output signal from the means for measuring (7) determines the operative condition of the means for measuring (7) by comparing the reference signal and the second output signal.

Bathe et al '083 fails to teach or suggest the claimed arrangement. For example, Bathe et al '083 fails to teach means for providing a reference value that provides a reference signal indicative of a known value for a sample property that can be measured by the means for measuring. Bathe et al '083 fails to teach a second means for sampling (16) that provides a sample exhibiting the sample property, a known value of which is indicated by the reference signal. In addition, Bathe et al '083 fails altogether to teach the means for switching (15a, 15b, 15c) and the comparator, as defined by claim 45.

As such, claim 45 is believed allowable.

Claims 46-57

Claims 46-57 depend directly or indirectly from claim 45, and as such are believed allowable for the reasons stated above, as well as the subject matter recited therein.

Claim 58

Claim 58 recites an arrangement for a feedback control system connected to a medical apparatus having a gas monitor (7) and a gas dispenser (10). The arrangement also includes means for providing a reference value, which provides a reference value indicative of a known value for a sample property that can be measured by the gas monitor (7). The arrangement further includes means for switching (15a, 15b, 15c). The means for switching provides a patient care factor sample from a first means for sampling (8) to the gas monitor (7) to cause the gas monitor (7) to provide a first output signal to a controller (9). The first output signal is suitable for use in conjunction with the input signal from a user interface (12) to control the gas dispenser (10).

The means for switching is also switchable to provide a property exhibiting sample from a second means for sampling (16) to the gas monitor (7) to cause the gas monitor (7) to provide a second output signal. A comparator is provided to receive the reference signal and the second output signal from the gas monitor (7). The comparator compares the reference signal and the second output signal to determine the operative condition of the gas monitor (7).

As discussed above, Bathe et al '083 fails altogether to teach or suggest the claimed second means for sampling (16), which provides a sample exhibiting the sample property, a known value of which is indicated by the reference signal. Bathe et al '083 also fails to teach or suggest means for switching (15a, 15b, 15c), or a comparator for comparing signals, as described in claim 58. Therefore, the system of Bathe et al '083 cannot detect whether the gas sensing bench 52 is operating incorrectly. This is completely contrary to the presently claimed invention, which makes it possible to periodically check the operation of the gas monitor, to ensure it is operating properly. Bathe et al '083 thus neither teaches nor suggests the structures, functions and/or advantages of the present invention.

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Amendment dated January 20, 2005
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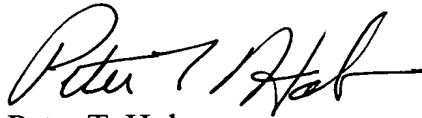
As such, claim 36 is believed allowable.

Conclusion

The present Application is thus believed in condition for allowance with claims 36-58. Such action is respectfully requested.

Respectfully submitted,

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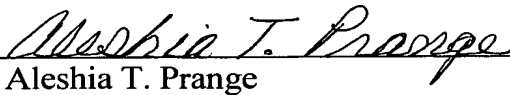


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Aleshia T. Prange

January 20, 2005
Date